

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
8 January 2004 (08.01.2004)

PCT

(10) International Publication Number  
**WO 2004/002449 A1**

(51) International Patent Classification<sup>7</sup>: **A61K 9/00**, (74) Agent: **BLUNDELL, Isabelle, A., S.**; Genzyme Corporation, One Kendall Square, Cambridge, MA 02139 (US).  
9/06, 47/32, 47/34, 47/36

(21) International Application Number:  
**PCT/US2003/020451**

(22) International Filing Date: 27 June 2003 (27.06.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/392,642 28 June 2002 (28.06.2002) US

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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/002449 A1

(54) Title: CONTROLLED RELEASE OF ANTI-ARRHYTHMIC AGENTS

(57) Abstract: Methods for the simple, reliable application and local controlled release of selected anti-arrhythmia drugs from a hydrogel applied to or polymerized on the tissues of the heart or its vessels, especially in conjunction with cardiac bypass or other cardiac surgery, have been developed. The anti-arrhythmia drugs are incorporated along with an anti-inflammatory agent into hydrogels that biodegrade and adhere to the tissues to which the anti-arrhythmic drugs are to be delivered. The hydrogels may be formed *in vitro* or *in vivo*. In a preferred embodiment, the drugs are effective to lengthen atrial effective refractory period and minimize the inflammatory response. A particularly preferred drug is amiodarone and dexamethasone.